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ABSTRACT

This report describes various components of the process of disaggregating student achievement data and provides examples of each component. Information is provided to allow school districts to conduct their own school effectiveness evaluation. Results of the California Achievement Tests form one of the bases of the analysis. The underlying question concerns whether school districts are effectively delivering instruction to students from every major social group. The most basic process that is illustrated delineates the percentage of students in each social class achieving minimum mastery. The most advanced model will demonstrate the independent and interactive relationships among social class, gender, family structure, and race. Criterion measures include standardized test results and course grades. Data are tabulated for approximately 8,000 students in grades 4, 6, 7, and 8 in the Jackson (Mississippi) Public School District. (TJH)

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Disaggregating Pupil Performance Scores: Evaluating School Effectiveness

Presented by:
Robert N. Fortenberry, Superintendent
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Jackson, Mississippi

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James A. Tadlock, Director of Program Evaluation

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DISAGGREGATING PUPIL PERFORMANCE SCORES: EVALUATING SCHOOL EFFECTIVENESS

Presented by

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Jackson Public School District
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TABLE OF CONTENTS

Page

IMPROVING SCHOOLS..... 1

OPPORTUNITY AND CHALLENGE..... 1

EVALUATING SCHOOL EFFECTIVENESS..... 2

DISAGGREGATING PUPIL ACHIEVEMENT DATA..... 3

PROCEDURE AND DEFINITION OF TERMS..... 3

DISAGGREGATION MODELS (Examples)

CAT Scores Disaggregated by Social Class Only for a Period of Three Years..... 5

CAT Scores Disaggregated by Social Class, Gender and Family Structure (One Year)..... 10

CAT Scores and Course Grades Disaggregated by Social Class, Gender, and Race with Independent and Interactive Relationships Among Variables..... 19

References..... 30

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Improving Schools

The history of public education can be traced through many changes since the founding of America. James Robinson outlines American education in three eras. Era one is described where little learning was expected from many pupils. Pupils who would, learned; others were considered laggards. In era two much learning was expected from some pupils. Good learners learned much; poor learners learned little. In era three much learning is expected from all pupils. All pupils can learn, given sufficient time and assistance (Robinson, 1986). We may argue for some other historical description of education but there is little argument today that the primary objective of our schools is to provide the best education for all pupils (Grant and Sleeter,1986).

Opportunity and Challenge

The current movement to reform and improve schools is especially significant in view of demographic trends in this country. Drastic changes in the American family have significant implications for schools. The typical household of a working father and housewife mother simply no longer exists. There are more working mothers with pre-school and school age children than ever before. Single parent families are commonplace due to divorce and never-married mothers. The need for child care is extensive--but often not available or not affordable. Accompanying this situation is an increasing number of pupils growing up in poverty--with all it's attendant ills. Because of inadequate diet, poor medical care, family stress, and experiential deprivation, increasing numbers of pupils are entering school with specific learning disabilities or serious learning difficulties (Hodgkinson,1986).

Schools are truly confronted with a challenge. Since we cannot control the circumstances from which our pupils come, we must be able to control the construction and delivery of education so that all groups receive adequate attention. Curriculum must be designed to fit the needs of all pupils without neglect of any group. Special evaluation procedures are critical in the process of designing and evaluating instructional programs, whether the programs are for gifted pupils or for pupils who will need additional time and motivation to succeed.

Evaluating School Effectiveness

The school effectiveness movement is a significant contemporary effort to serve the educational needs of all pupils (Edmonds, 1979). The keystone of this movement is the belief that all pupils can master essential objectives whether from upper, middle, or lower social class. This is in sharp contrast to other beliefs that familial effects rather than school effects have the greatest influence on pupil learning (Coleman,1966). No claim is made by school effectiveness proponents that pupils from all social groups will perform equally well on all dimensions of the learning continuum; rather, the belief is that essential objectives can be taught by schools in a manner so that pupils will achieve minimum mastery regardless of family background. Ron Edmonds identifies schools where such learning is taking place as "effective schools." He also identifies specific organizational and instructional characteristics of these schools which he calls "correlates of effective schools" (Edmonds,1979).

Evaluating school effectiveness has been accomplished by an assortment of algorithms and methods (Frederick and Clauset,1985). But in any setting there are several essential considerations in establishing procedures for determining school effectiveness:

1. Pupil performance measures (standardized tests, criterion tests, etc.) must be "disaggregated" and analyzed for each of the groups under consideration. For example, if ninety-five percent of low social class pupils and ninety-five percent of upper/middle class pupils in a school achieved mastery of essential objectives, the school would be considered effective. However, if only seventy-five percent of either of the groups achieved mastery of essential objectives, the school would be deemed not effective. Likewise, if a low percentage of both groups achieved minimum mastery, the school would be considered not effective.

2. Traditional statistical procedures may be inappropriate for some aspects of school effectiveness evaluation. A higher mean score for a group of pupils may not indicate greater school effectiveness since mean scores can be raised by raising the performance of the middle and upper groups. This procedure could disregard the performance of the lowest group--the very group to whom the school effectiveness movement is addressed (Fortenberry, et al,1987).

3. Disaggregation of pupil achievement data was done at first on the basis of social class only. This effort has now been extended to include other pupil attributes such as

race, gender, and familial circumstances (Fortenberry, et al). The inclusion of multiple variables gives more power to the evaluation process as the independent and composite effects of variables are considered.

4. The effective schools movement grew out of an attempt to improve instruction for poor, urban, minority pupils. The working philosophy was that equal percentages of pupils from all social groups could master essential objectives. But while Ron Edmond's first concern was equity, he was quick to point out his concern for excellence. He contended that equity was inextricably tied to the issue of excellence. Without equity there could be no excellence.

Purpose: Disaggregation of Pupil Achievement Data

The primary purpose of this document is to describe various components of the disaggregation process and to provide examples of each component. A secondary purpose is to provide school districts with a vehicle for conducting their own school effectiveness evaluation. The underlying question is whether or not school districts are effectively delivering instruction to pupils from all major social groups. The most basic process illustrated here will simply delineate the percentage of pupils in each social class (or other group) achieving minimum mastery. The most advanced model will demonstrate the independent and interactive relationships between social class, gender, and race. Criterion measures will include standardized test results (CAT) and course grades. All of the examples shown are actual data utilized by the Jackson Public School District, Jackson, Mississippi.

Procedure and Definition of Terms

Three examples of disaggregation analysis are given on the following pages. Data are presented in both tabular and graphic form. Explanatory notes are given on a title page preceding each section. The following definitions will help understanding of the examples. (Abbreviations may be used where brevity is appropriate.)

1. California Achievement Test (CAT).--The 1977 edition was used 1983 through 1985. The 1985 edition was used for 1986 and 1987. Unless stated otherwise, total battery is the score used for analysis.

2. Population.--The population for this study is approximately 8,000 pupils in grades, 4, 6, 7, and 8 in the Jackson Public Schools. The district is composed of about 30,000 pupils in 37 elementary schools, 10 junior high schools, and 7 senior high schools.

3. **Minimum Mastery of Essential Objectives.**--For the CAT, minimum mastery is measured by achievement above the 30th percentile. For course grades, minimum mastery is considered a passing grade. These levels are arbitrary and could be changed within reasonable bounds.

4. **Social Class (U=upper and L=lower).**--Social class is defined by a method advocated by Ron Edmonds which assigns free and reduced meals recipients to lower SES and paying pupils to Middle/Upper SES. A better method would be to use parent occupation for this purpose, but it has been difficult to collect and reliable information.

5. **Number of Parents in the Household.**--Pupils living with both natural parents, one natural parent and a step-parent, one natural parent and an adoptive parent, and with two legally adoptive parents are considered from two-parent homes. Those with one parent and those who have been placed with a family by court order are considered from one parent households. (Use of this variable was not continued in the last process because of so much overlap between number of parents in the household and SES.)

6. **Gender (GEN).**--M=male and F=female.

GETTING STARTED: THE FIRST MODEL

Disaggregating CAT Scores On the Basis of Social Class Only 1983-1985

The table and charts in this section illustrate pupil performance on the CAT over a three-year period for grades 4, 6, and 8. Significant results from these data are:

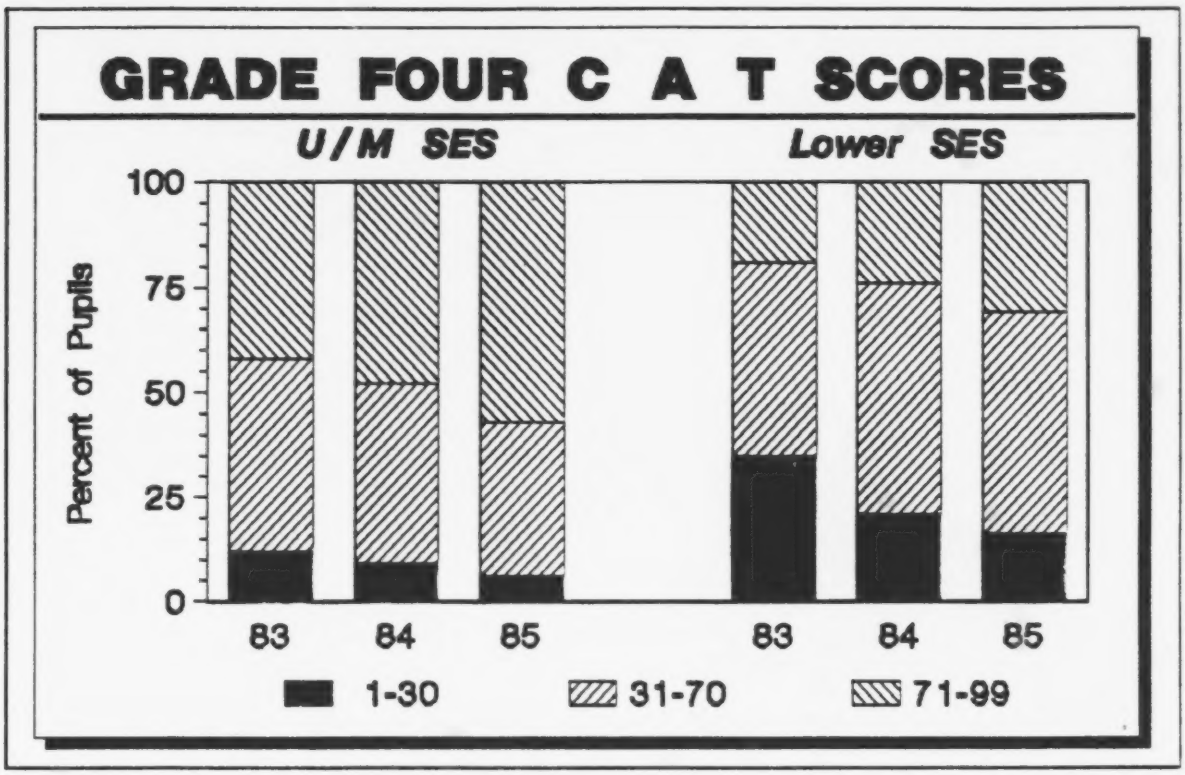
1. The performance of upper SES pupils is generally better than that of lower SES pupils, but that difference has narrowed during the three year period. There has been a decrease in the percentage of low-achieving pupils from both lower and upper SES groups.

2. The emphasis on mastery of essentials for lower SES pupils has not been accompanied by a decrease in the percentage of higher achieving pupils, rather, the percentage of higher achieving pupils has INCREASED in both social classes.

The model used here is very simple--but very powerful! In the face of parent demands for both equity and excellence this process illustrates considerable progress by the district in successful delivery of services to pupils from both upper and lower social classes. The decrease in the difference in minimum mastery between upper and lower social classes is a source of immense pride for the district! But the remaining difference is a source of concern. The district continues the effort to improve instruction. The ultimate goal is to completely eliminate the difference!!

PUPIL ACHIEVEMENT DATA DISAGGREGATED BY SES AND
AVERAGE PERCENTILE SCORES
BY GRADE AND BY YEAR

					HIGH SES				LOW SES			
					PCT OF SCORES			TOTAL	PCT OF SCORES			TOTAL
SCHOOL	GRA	YR	TEST	TOT N	1-30	31-70	71-99	NUM-BER	1-30	31-70	71-39	NUM-BER
DISTRIC	04	83	CAT	1794	12.0	46.0	42.0	595	36.0	46.0	18.0	1199
DISTRIC	04	84	CAT	2236	9.0	42.0	49.0	779	21.0	55.0	24.0	1457
DISTRIC	04	85	CAT	2037	6.1	37.0	57.0	660	16.3	52.9	30.8	1377
DISTRIC	06	83	CAT	1583	11.0	48.0	41.0	592	34.0	52.0	14.0	991
DISTRIC	06	84	CAT	2162	8.0	39.0	53.0	806	24.0	51.0	25.0	1356
DISTRIC	06	85	CAT	2132	5.4	34.0	60.7	727	15.3	51.6	33.1	1405
DISTRIC	08	83	CAT	2269	15.0	51.0	34.0	739	34.0	48.0	18.0	1530
DISTRIC	08	84	CAT	2298	11.0	45.0	44.0	862	37.0	52.0	11.0	1436
DISTRIC	08	85	CAT	1962	8.0	49.1	42.8	820	26.7	59.0	14.3	1142



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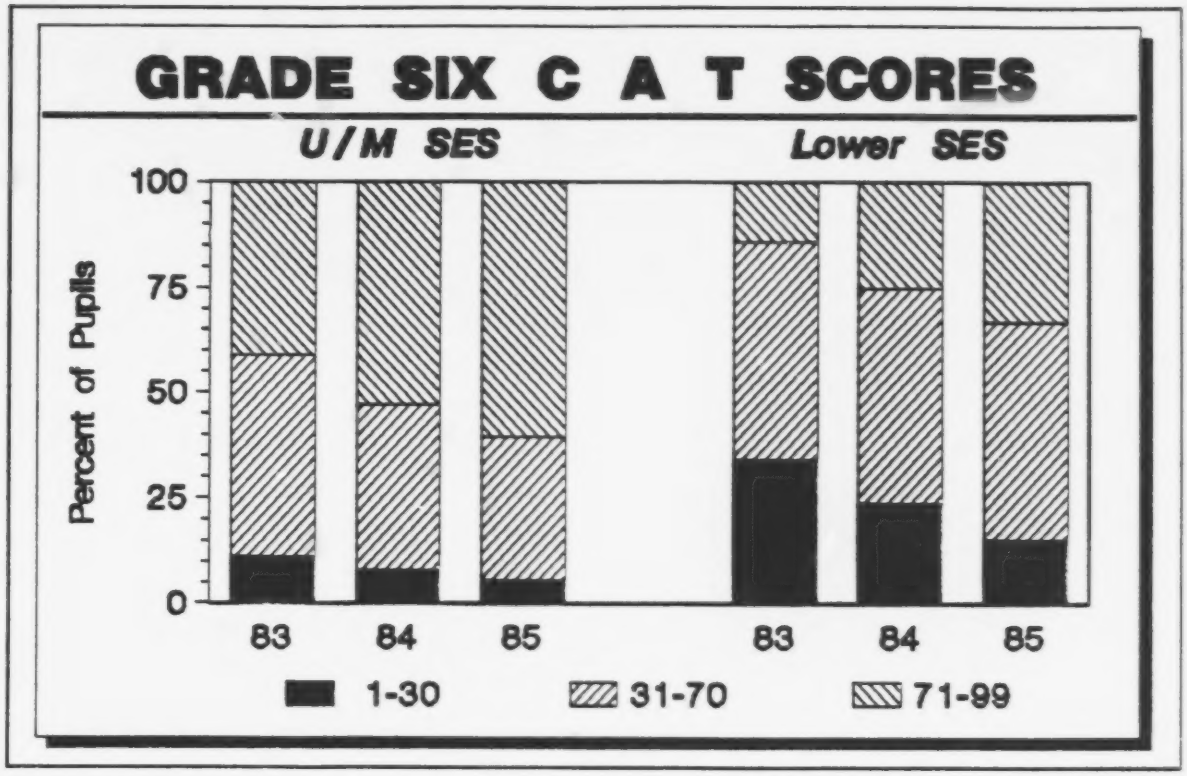

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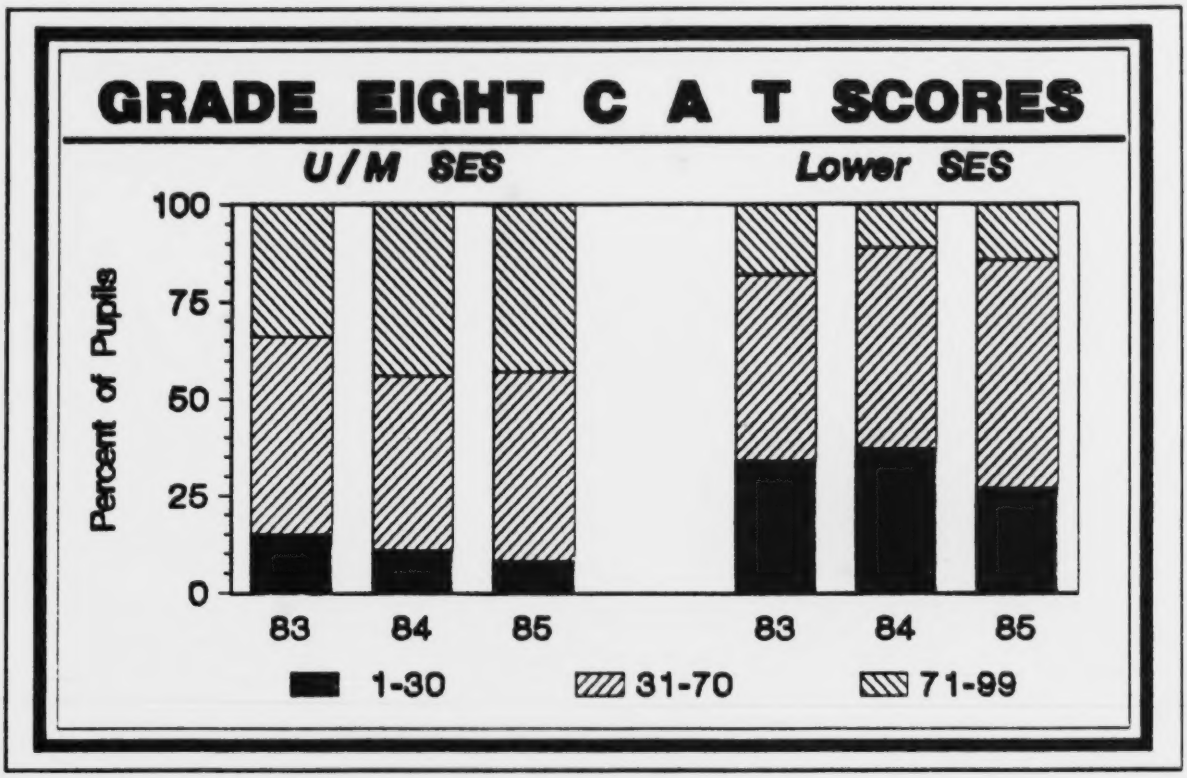

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DISAG8G

MODEL TWO: INCLUDING MULTIPLE VARIABLES

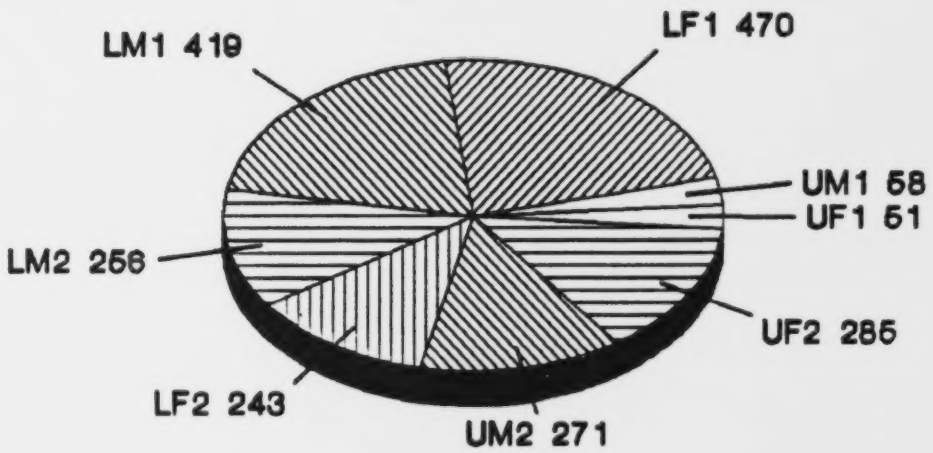
Disaggregation of CAT Scores by Social Class, Gender, and Family Structure

The tables and charts in this section provide disaggregation of test scores for each unique group that can be formed with the variables of social class, number of parents in the household, and gender. A description of the distribution of pupils within groups is provided in the pie charts. (Race is not included in this analysis--only SES, NPH, and GEN.) The sequence of groups on the bar charts have been arranged to give the best linear fit of scores from the poorest on the left to the best on the right. (This arrangement is arbitrary and may leave cause for argument.) Significant findings are:

1. Generally, females score better than males, two parent children score better than one-parent children, and upper SES children score better than lower SES children.
2. The highest achievement is by the upper SES, female from a two-parent household. The lowest achievement is from lower SES, male, from a one-parent household.
3. Achievement is not affected by parental status for upper class pupils, but two-parent household lower SES pupils do perform better than one-parent household lower SES pupils.

This phase of the Jackson Public Schools disaggregation effort suggested further study to precisely define the complex interactions among variables.

Grade Four Demographics - 1985



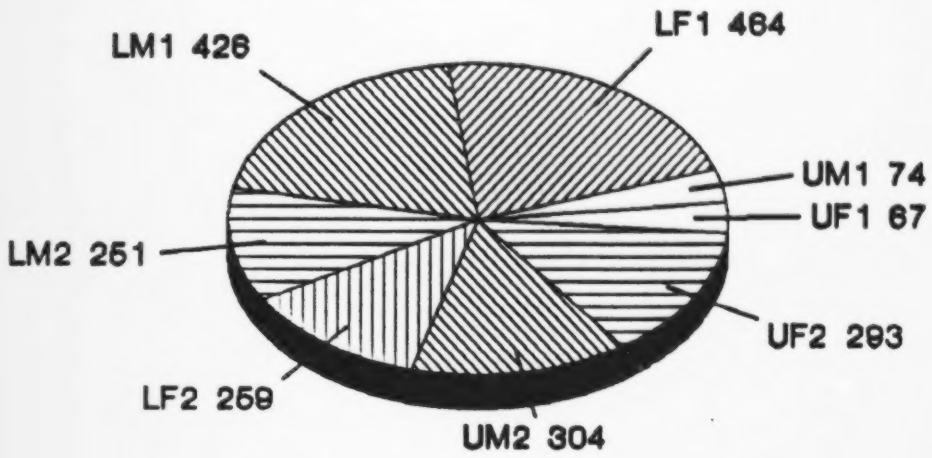
Total N = 2053

U,L = Upper,Lower SES M,F = Male, Female
1,2 = Number of Parents in Household

NOTES

PDEM4C

Grade Six Demographics - 1985



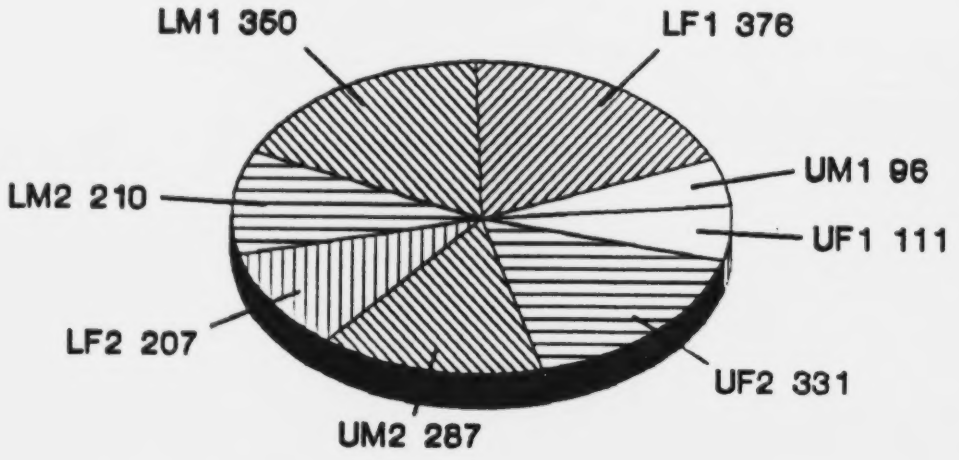
Total N = 2138

U,L = Upper,Lower SES M,F = Male, Female
1,2 = Number of Parents in Household

NOTES

PDEM6C

Grade Eight Demographics - 1985



Total N = 1988

U,L = Upper,Lower SES M,F = Male, Female
1,2 = Number of Parents in Household

NOTES

PDEM8C

NUMBER AND PERCENT OF PUPILS
BY SES, GENDER, AND NUMBER OF PARENTS IN HOUSEHOLD

JACKSON PUBLIC SCHOOLS
1984-85

GROUP OR SUB-GROUP	GRADE 4		GRADE 6		GRADE 8	
	N	PCT	N	PCT	N	PCT
GRAND TOTAL	2053	---	2138	---	1968	---
U-UPPER SES	665	32.39	738	34.52	825	41.92
L-LOWER SES	1388	67.61	1400	65.48	1143	58.08
M-MALE	1004	48.90	1055	49.35	943	47.92
F-FEMALE	1049	51.10	1083	50.65	1025	52.08
1-ONE PARENT	998	48.61	1031	48.22	933	47.41
2-TWO PARENT	1055	51.39	1107	51.78	1035	52.59
LM1	419	20.41	426	19.93	350	17.78
LM2	256	12.47	251	11.74	210	10.67
LF1	470	22.89	464	21.70	376	19.11
LF2	243	11.84	259	12.11	207	10.52
UM1	58	2.83	74	3.46	96	4.88
UM2	271	13.20	304	14.22	287	14.58
UF1	51	2.48	67	3.14	111	5.64
UF2	285	13.88	293	13.70	331	16.82
UF1+UM1	109	5.31	141	6.59	207	10.52
LF1+LM1	889	43.30	890	41.63	726	36.89
LM2+LF2+UM2+UF2	1055	51.39	1107	51.78	1035	52.59

DISTRIBUTION OF CAT SCORES
FOR GRADES FOUR, SIX AND EIGHT
1984-1985
DISAGGREGATED BY SES, GENDER, AND NUMBER OF PARENTS

U,L = UPPER, LOWER SES M,F = MALE, FEMALE
1,2 = ONE- OR TWO-PARENT HOUSEHOLD

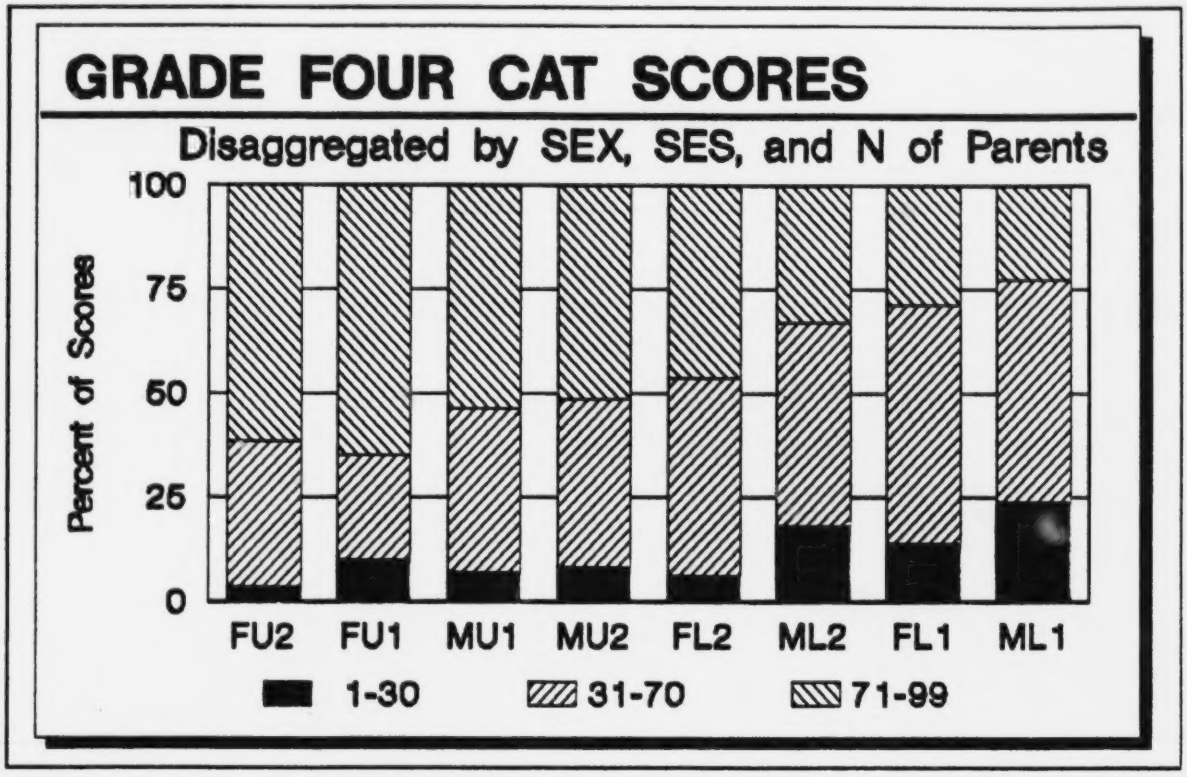
GROUP	GRADE		RANGE OF PERCENTILE SCORES 1-30	31-70	71-100	TOTAL
LF1	4	N=	65	270	135	470
		%=	13.83	57.45	28.72	
LF2	4	N=	15	116	112	243
		%=	6.17	47.74	46.09	
LM1	4	N=	100	224	95	419
		%=	23.87	53.46	22.67	
LM2	4	N=	46	126	84	256
		%=	17.97	49.22	32.81	
UF1	4	N=	5	13	33	51
		%=	9.80	25.49	64.71	
UF2	4	N=	10	100	175	285
		%=	3.51	35.09	61.40	
UM1	4	N=	4	23	31	58
		%=	6.90	39.66	53.45	
UM2	4	N=	22	110	139	271
		%=	8.12	40.59	51.29	

(CONTINUED OVER)

DISTRIBUTION OF CAT SCORES
FOR GRADES FOUR, SIX AND EIGHT
1984-1985
DISAGGREGATED BY SES, GENDER, AND NUMBER OF PARENTS

U,L = UPPER, LOWER SES M,F = MALE, FEMALE
1,2 = ONE- OR TWO-PARENT HOUSEHOLD

GROUP	GRADE		RANGE OF PERCENTILE SCORES 1-30	31-70	71-100	TOTAL
LF1	6	N=	53	243	168	464
		%=	11.42	52.37	36.21	
LF2	6	N=	22	124	113	259
		%=	8.49	47.88	43.63	
LM1	6	N=	88	226	112	426
		%=	20.66	53.05	26.29	
LM2	6	N=	51	126	74	251
		%=	20.32	50.20	29.48	
UF1	6	N=	3	19	45	67
		%=	4.48	28.36	67.16	
UF2	6	N=	6	97	190	293
		%=	2.05	33.11	64.85	
UM1	6	N=	9	31	34	74
		%=	12.16	41.89	45.95	
UM2	6	N=	22	107	175	304
		%=	7.24	35.20	57.57	
LF1	8	N=	90	225	61	376
		%=	23.94	59.84	16.22	
LF2	8	N=	38	127	42	207
		%=	18.36	61.35	20.29	
LM1	8	N=	118	196	36	350
		%=	33.71	56.00	10.29	
LM2	8	N=	59	26	25	210
		%=	28.10	60.00	11.90	
UF1	8	N=	9	60	42	111
		%=	8.11	54.05	37.84	
UF2	8	N=	20	146	165	331
		%=	6.04	44.11	49.85	
UM1	8	N=	12	54	30	96
		%=	12.50	56.25	31.25	
UM2	8	N=	26	146	115	287
		%=	9.06	50.87	40.07	



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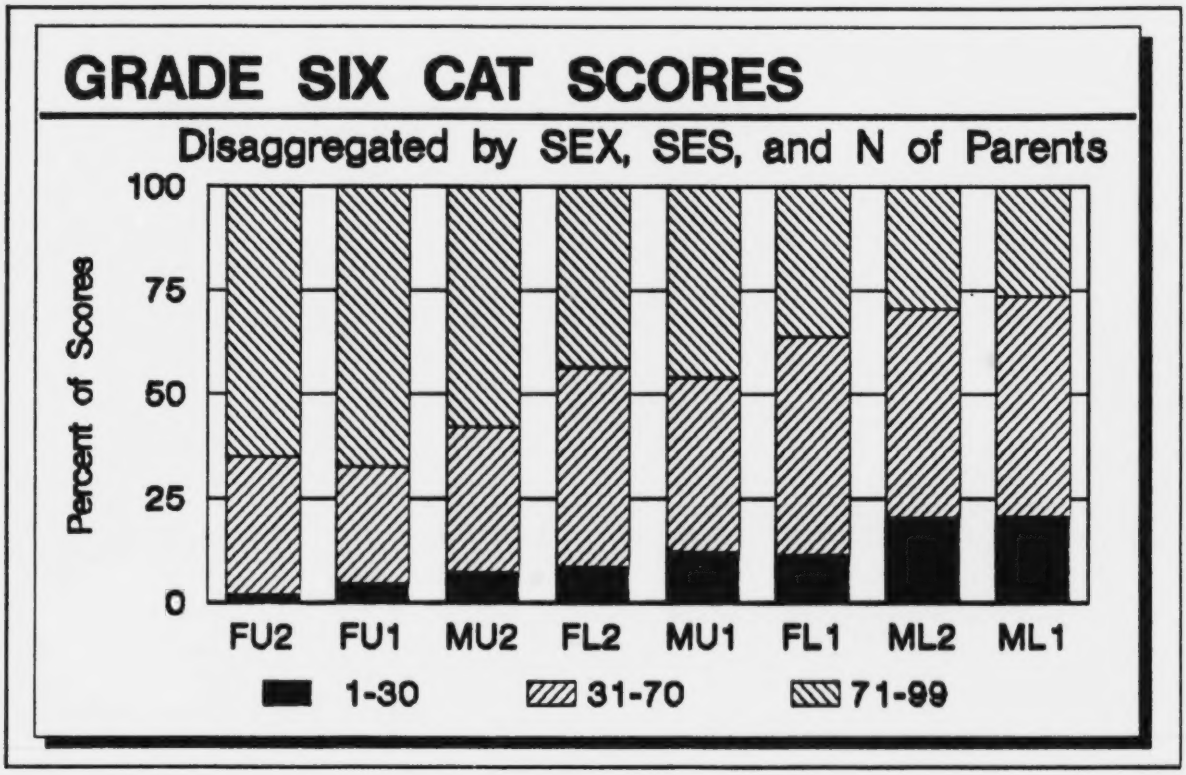
CAT4MC



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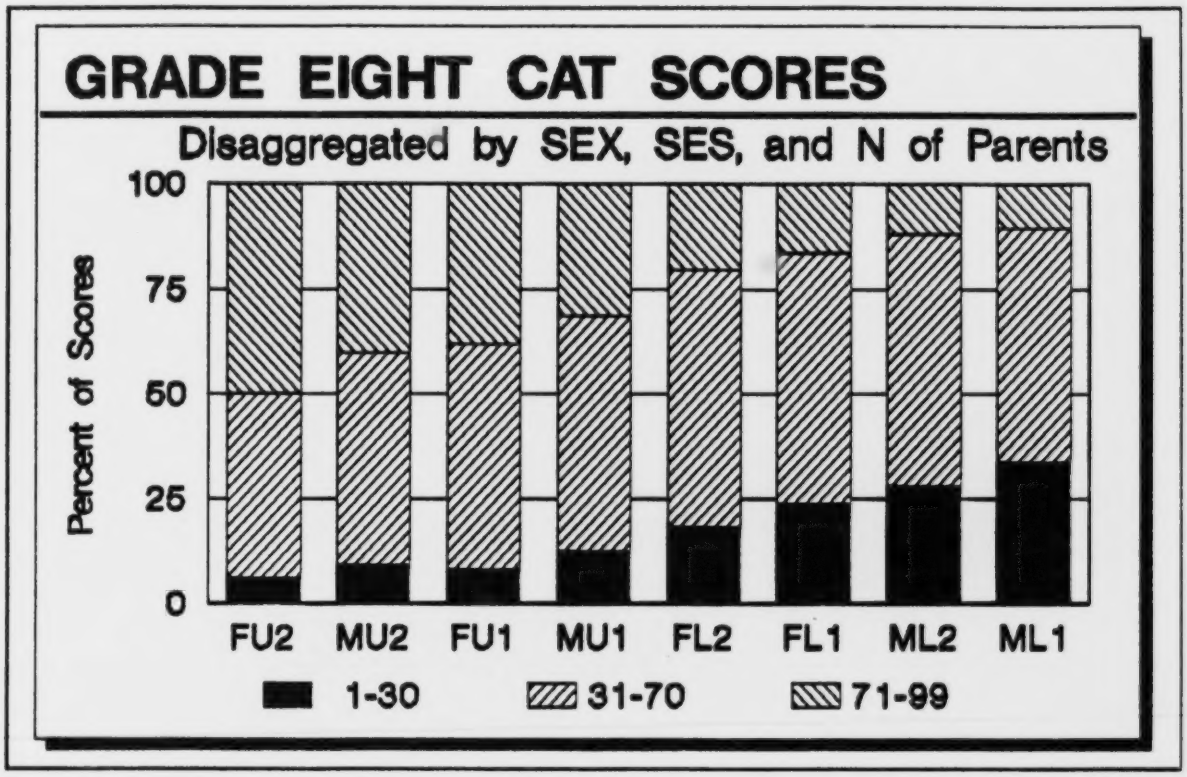
CAT6MC



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CAT8MC

MODEL THREE: INTERACTION ANALYSIS

Independent and Interactive Relationships of Social Class, Gender, and Race with CAT Scores and with Course Grades

The CAT total battery percentile scores are shown for grades 4, 6, 7, and 8. Scores are distributed in ranges of 1-30, 31-70, and 71-99 rather than the usual quartile distribution. Minimum mastery is considered any score above 30. (This criteria is an arbitrary one.) Distributions of scores are then shown for each group independently and in all combinations of two and three variables. Within each comparison, groups are ranked by the percentage achieving minimum mastery. The result is a sort of "layman's interaction analysis". Course grade results are disaggregated in the same manner except grades are divided into three groups, failing (below 70), passing (above 70), and mastering (above 74).

The analysis here expands information obtained in previous phases of disaggregation. There are a few exceptions, but generally the following is indicated.

1. The highest scoring pupils are higher SES, non-minority, female. But the lower SES, minority female does almost as well. The poorest scoring pupils are lower SES, minority male.

2. When race and SES are considered together, the best determinant of performance is SES rather than race.

3. Females score slightly better than males in all grades with differences more pronounced in lower grades. Little difference in scores is indicated between higher SES females and lower SES females, but considerable difference is indicated in scores for higher SES males and lower SES males.

4. Pupils from upper SES score equally well whether from one or two parent households, but the minority low SES male scores much lower than the non-minority low SES male.

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 4TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			40.15	43.85	15.98	1758
UPPER SES			16.59	40.32	43.07	729
	MINORITY		38.37	42.69	18.93	1965
	NON-MINORITY		13.98	43.29	42.72	522
		MALE	40.07	40.39	19.53	1280
		FEMALE	26.01	45.40	28.58	1207
LOWER SES	MINORITY		41.48	42.90	15.61	1620
LOWER SES	NON-MINORITY		24.63	55.07	20.28	138
UPPER SES	MINORITY		23.76	41.73	34.49	345
UPPER SES	NON-MINORITY		10.15	39.06	50.78	384
LOWER SES		MALE	48.32	39.70	11.96	894
LOWER SES		FEMALE	31.71	48.14	20.13	864
UPPER SES		MALE	20.98	41.96	37.04	386
UPPER SES		FEMALE	11.66	38.48	49.85	343
	MINORITY	MALE	46.87	39.01	14.11	992
	MINORITY	FEMALE	29.70	46.45	23.84	973
	NON-MINORITY	MALE	16.66	45.13	38.19	288
	NON-MINORITY	FEMALE	10.68	41.02	48.29	234
LOWER SES	MINORITY	MALE	50.42	38.55	11.01	817
LOWER SES	MINORITY	FEMALE	32.37	47.32	20.29	803
UPPER SES	MINORITY	MALE	30.28	41.14	28.57	175
LOWER SES	NON-MINORITY	MALE	25.97	51.94	22.07	77
LOWER SES	NON-MINORITY	FEMALE	22.95	59.01	18.03	61
UPPER SES	MINORITY	FEMALE	17.05	42.35	40.58	170
UPPER SES	NON-MINORITY	MALE	13.27	42.65	44.07	211
UPPER SES	NON-MINORITY	FEMALE	6.35	34.68	58.95	173
*********	**********	******	33.25	42.82	23.92	2487

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 6TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			28.05	48.71	23.22	1326
UPPER SES			12.67	41.12	46.19	710
	MINORITY		26.42	47.79	25.77	1521
	NON-MINORITY		11.65	40.97	47.37	515
		MALE	28.46	44.31	27.21	959
		FEMALE	17.54	47.63	34.81	1077
LOWER SES	MINORITY		28.72	48.88	22.38	1215
LOWER SES	NON-MINORITY		20.72	46.84	32.43	111
UPPER SES	MINORITY		17.32	43.46	39.21	306
UPPER SES	NON-MINORITY		9.15	39.35	51.48	404
LOWER SES		MALE	35.29	47.05	17.64	629
LOWER SES		FEMALE	21.52	50.21	28.26	697
UPPER SES		MALE	15.45	39.09	45.45	330
UPPER SES		FEMALE	10.26	42.89	46.84	380
	MINORITY	MALE	33.71	46.28	20.00	700
	MINORITY	FEMALE	20.21	49.08	30.69	821
	NON-MINORITY	MALE	14.28	38.99	46.71	259
	NON-MINORITY	FEMALE	8.98	42.96	48.04	256
LOWER SES	MINORITY	MALE	36.61	46.47	16.90	568
LOWER SES	NON-MINORITY	MALE	22.95	52.45	24.59	61
LOWER SES	MINORITY	FEMALE	21.79	51.00	27.20	647
UPPER SES	MINORITY	MALE	21.21	45.45	33.33	132
LOWER SES	NON-MINORITY	FEMALE	18.00	40.00	42.00	50
UPPER SES	MINORITY	FEMALE	14.36	41.95	43.67	174
UPPER SES	NON-MINORITY	MALE	11.61	34.84	53.53	198
UPPER SES	NON-MINORITY	FEMALE	6.79	43.68	49.51	206
*********	**********	******	22.69	46.07	31.23	2036

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 7TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			39.26	48.67	12.05	1286
UPPER SES			20.02	46.31	33.65	719
	MINORITY		37.47	47.73	14.78	1569
	NON-MINORITY		13.99	48.16	37.84	436
		MALE	39.23	42.96	17.79	1017
		FEMALE	25.30	52.83	21.86	988
LOWER SES	MINORITY		40.53	48.17	11.29	1204
UPPER SES	MINORITY		27.39	46.30	26.30	365
LOWER SES	NON-MINORITY		20.73	56.09	23.17	82
UPPER SES	NON-MINORITY		12.42	46.32	41.24	354
LOWER SES		MALE	46.94	43.19	9.85	639
LOWER SES		FEMALE	31.68	54.09	14.21	647
UPPER SES		MALE	26.19	42.59	31.21	378
UPPER SES		FEMALE	13.19	50.43	36.36	341
	MINORITY	MALE	45.82	42.23	11.93	779
	MINORITY	FEMALE	29.24	53.16	17.59	790
	NON-MINORITY	MALE	17.64	45.37	36.97	238
	NON-MINORITY	FEMALE	9.59	51.51	38.88	198
LOWER SES	MINORITY	MALE	48.98	42.56	8.44	592
UPPER SES	MINORITY	MALE	35.82	41.17	22.99	187
LOWER SES	MINORITY	FEMALE	32.35	53.59	14.05	612
LOWER SES	NON-MINORITY	MALE	21.27	51.06	27.65	47
LOWER SES	NON-MINORITY	FEMALE	20.00	62.85	17.14	35
UPPER SES	MINORITY	FEMALE	18.53	51.68	29.77	178
UPPER SES	NON-MINORITY	MALE	16.75	43.97	39.26	191
UPPER SES	NON-MINORITY	FEMALE	7.36	49.07	43.55	163
*********	**********	******	32.36	47.83	19.80	2005

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 8TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			41.53	44.83	13.62	1240
UPPER SES			19.26	43.40	37.33	758
	MINORITY		38.84	44.67	16.47	1560
	NON-MINORITY		12.55	42.92	44.52	438
		MALE	41.12	39.35	19.51	958
		FEMALE	25.67	48.84	25.48	1040
LOWER SES	MINORITY		42.73	44.53	12.72	1163
UPPER SES	MINORITY		27.45	45.08	27.45	397
LOWER SES	NON-MINORITY		23.37	49.35	27.27	77
UPPER SES	NON-MINORITY		10.24	41.55	48.19	361
LOWER SES		MALE	52.60	37.50	9.89	576
LOWER SES		FEMALE	31.92	51.20	16.86	664
UPPER SES		MALE	23.82	42.14	34.03	382
UPPER SES		FEMALE	14.62	44.68	40.69	376
	MINORITY	MALE	48.40	38.53	13.06	750
	MINORITY	FEMALE	30.00	50.37	19.62	810
	NON-MINORITY	MALE	14.90	42.30	42.78	208
	NON-MINORITY	FEMALE	10.43	43.47	46.08	230
LOWER SES	MINORITY	MALE	54.32	36.64	9.02	543
UPPER SES	MINORITY	MALE	32.85	43.47	23.67	207
LOWER SES	MINORITY	FEMALE	32.58	51.45	15.96	620
LOWER SES	NON-MINORITY	MALE	24.24	51.51	24.24	33
LOWER SES	NON-MINORITY	FEMALE	22.72	47.72	29.54	44
UPPER SES	MINORITY	FEMALE	21.57	46.84	31.57	190
UPPER SES	NON-MINORITY	MALE	13.14	40.57	46.28	175
UPPER SES	NON-MINORITY	FEMALE	7.52	42.47	50.00	186
*********	**********	******	33.08	44.29	22.62	1998

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF ELEMENTARY READING GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERY	PASSING	FAILING	AV GRADE	N GRADES
UPPER SES			98.30	99.45	0.54	91.88	4615
LOWER SES			93.06	96.48	3.51	88.76	11228
	NON-MINORITY		97.44	98.79	1.20	91.49	3479
	MINORITY		93.78	96.94	3.05	89.15	12364
		FEMALE	96.38	98.25	1.74	90.46	7802
		MALE	92.84	96.46	3.53	88.90	8041
UPPER SES	NON-MINORITY		98.78	99.52	0.47	92.13	2545
UPPER SES	MINORITY		97.72	99.37	0.62	91.57	2070
LOWER SES	NON-MINORITY		93.79	96.78	3.21	89.73	934
LOWER SES	MINORITY		92.99	96.45	3.54	88.67	10294
UPPER SES		FEMALE	99.33	99.77	0.22	92.55	2244
UPPER SES		MALE	97.34	99.15	0.84	91.24	2371
LOWER SES		FEMALE	95.19	97.64	2.35	89.61	5558
LOWER SES		MALE	90.97	95.34	4.65	87.92	5670
	NON-MINORITY	FEMALE	98.77	99.32	0.67	92.11	1631
	NON-MINORITY	MALE	96.26	98.32	1.67	90.93	1848
	MINORITY	FEMALE	95.75	97.97	2.02	90.02	6171
	MINORITY	MALE	91.82	95.91	4.08	88.29	6193
UPPER SES	NON-MINORITY	FEMALE	99.50	99.75	0.24	92.66	1205
UPPER SES	MINORITY	FEMALE	99.13	99.80	0.19	92.43	1039
UPPER SES	NON-MINORITY	MALE	98.13	99.32	0.67	91.66	1340
LOWER SES	NON-MINORITY	FEMALE	96.71	98.12	1.87	90.58	426
UPPER SES	MINORITY	MALE	96.31	98.93	1.06	90.70	1031
LOWER SES	MINORITY	FEMALE	95.07	97.60	2.39	89.53	5132
LOWER SES	NON-MINORITY	MALE	91.33	95.66	4.33	89.02	508
LOWER SES	MINORITY	MALE	90.93	95.31	4.68	87.81	5162
*********	**********	******	94.59	97.34	2.65	89.66	15843

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF ELEMENTARY MATHEMATIC GRADES

SES GROUP	ETHNIC GROUP	GENDER	MASTERY	PASSING	FAILING	AV GRADE	N GRADES
UPPER SES			98.67	99.45	0.54	91.88	4601
LOWER SES			95.01	97.40	2.59	88.76	11241
	NON-MINORITY		97.81	99.16	0.83	91.49	3474
	MINORITY		95.59	97.67	2.32	89.15	12368
		FEMALE	97.04	98.45	1.54	90.46	7791
		MALE	95.14	97.55	2.44	88.90	8051
UPPER SES	MINORITY		98.69	99.51	0.48	91.57	2063
UPPER SES	NON-MINORITY		98.66	99.40	0.59	92.13	2538
LOWER SES	NON-MINORITY		95.51	98.50	1.49	89.73	936
LOWER SES	MINORITY		94.97	97.30	2.69	88.67	10305
UPPER SES		FEMALE	99.37	99.68	0.31	92.55	2236
UPPER SES		MALE	98.01	99.23	0.76	91.24	2365
LOWER SES		FEMALE	96.11	97.96	2.03	89.61	5555
LOWER SES		MALE	93.95	96.85	3.14	87.92	5686
	NON-MINORITY	FEMALE	98.58	99.32	0.67	92.11	1630
	NON-MINORITY	MALE	97.12	99.02	0.97	90.93	1844
	MINORITY	FEMALE	96.64	98.23	1.76	90.02	6161
	MINORITY	MALE	94.55	97.11	2.88	88.29	6207
UPPER SES	NON-MINORITY	FEMALE	99.58	99.75	0.24	92.66	1203
UPPER SES	MINORITY	FEMALE	99.12	99.61	0.38	92.43	1033
UPPER SES	MINORITY	MALE	98.25	99.41	0.58	90.70	1030
UPPER SES	NON-MINORITY	MALE	97.82	99.10	0.89	91.66	1335
LOWER SES	MINORITY	FEMALE	96.13	97.95	2.04	89.53	5128
LOWER SES	NON-MINORITY	FEMALE	95.78	98.12	1.87	90.58	427
LOWER SES	NON-MINORITY	MALE	95.28	98.82	1.17	89.02	509
LOWER SES	MINORITY	MALE	93.81	96.65	3.34	87.81	5177
*********	**********	******	96.08	97.99	2.00	89.66	15842

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF JUNIOR HIGH ENGLISH GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			78.19	90.72	9.27	81.26	2587
LOWER SES			65.36	83.26	16.73	76.20	3866
	NON-MINORITY		76.26	88.40	11.59	80.74	1458
	MINORITY		68.82	85.62	14.37	77.50	4995
		FEMALE	78.65	91.35	8.64	80.81	3252
		MALE	62.23	81.06	18.93	75.61	3201
UPPER SES	NON-MINORITY		79.23	89.90	10.09	81.84	1209
UPPER SES	MINORITY		77.28	91.43	8.56	80.75	1378
LOWER SES	MINORITY		65.60	83.41	16.58	76.26	3617
LOWER SES	NON-MINORITY		61.84	81.12	18.87	75.38	249
UPPER SES		FEMALE	84.54	94.56	5.43	83.52	1288
LOWER SES		FEMALE	74.79	89.25	10.74	79.03	1964
UPPER SES		MALE	71.90	86.91	13.08	79.02	1299
LOWER SES		MALE	55.62	77.07	22.92	73.29	1902
	NON-MINORITY	FEMALE	82.36	92.69	7.30	82.78	726
	MINORITY	FEMALE	77.59	90.97	9.02	80.24	2526
	NON-MINORITY	MALE	70.21	84.15	15.84	78.71	732
	MINORITY	MALE	59.86	80.15	19.84	74.70	2469
UPPER SES	NON-MINORITY	FEMALE	85.40	94.69	5.30	83.86	603
UPPER SES	MINORITY	FEMALE	83.79	94.45	5.54	83.22	685
LOWER SES	MINORITY	FEMALE	75.28	89.67	10.32	79.13	1841
UPPER SES	NON-MINORITY	MALE	73.10	85.14	14.85	79.82	606
UPPER SES	MINORITY	MALE	70.85	88.45	11.54	78.32	693
LOWER SES	NON-MINORITY	FEMALE	67.47	82.92	17.07	77.45	123
LOWER SES	NON-MINORITY	MALE	56.34	79.36	20.63	73.37	126
LOWER SES	MINORITY	MALE	55.57	76.91	23.08	73.28	1776
*********	**********	******	70.50	86.25	13.74	78.23	6453

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF JUNIOR HIGH MATHEMATICS GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			76.80	89.93	10.06	80.66	2574
LOWER SES			64.82	82.99	17.00	76.24	3846
	NON-MINORITY		79.90	89.81	10.18	81.26	1453
	MINORITY		66.61	84.59	15.40	77.07	4967
		FEMALE	76.45	90.27	9.72	80.30	3240
		MALE	62.67	81.19	18.80	75.69	3180
UPPER SES	NON-MINORITY		82.46	91.93	8.06	82.54	1203
UPPER SES	MINORITY		71.84	88.18	11.81	79.02	1371
LOWER SES	NON-MINORITY		67.60	79.60	20.40	75.13	250
LOWER SES	MINORITY		64.62	83.23	16.76	76.32	3596
UPPER SES		FEMALE	82.04	93.20	6.79	82.36	1281
LOWER SES		FEMALE	72.79	88.36	11.63	78.95	1959
UPPER SES		MALE	71.61	86.69	13.30	78.98	1293
LOWER SES		MALE	56.54	77.42	22.57	73.44	1887
	NON-MINORITY	FEMALE	83.86	91.65	8.34	82.64	719
	NON-MINORITY	MALE	76.02	88.01	11.98	79.91	734
	MINORITY	FEMALE	74.33	89.88	10.11	79.63	2521
	MINORITY	MALE	58.66	79.14	20.85	74.43	2446
UPPER SES	NON-MINORITY	FEMALE	86.43	93.80	6.19	83.85	597
UPPER SES	NON-MINORITY	MALE	78.54	90.09	9.90	81.24	606
UPPER SES	MINORITY	FEMALE	78.21	92.69	7.30	81.07	684
LOWER SES	MINORITY	FEMALE	72.89	88.84	11.15	79.09	1837
LOWER SES	NON-MINORITY	FEMALE	71.31	81.14	18.85	76.72	122
UPPER SES	MINORITY	MALE	65.50	83.69	16.30	76.98	687
LOWER SES	NON-MINORITY	MALE	64.06	78.12	21.87	73.60	128
LOWER SES	MINORITY	MALE	55.99	77.37	22.62	73.43	1759
*********	**********	******	69.62	85.77	14.22	78.02	6420

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF SENIOR HIGH ENGLISH GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			75.12	90.11	9.88	77.95	2854
LOWER SES			61.75	84.86	15.13	73.82	2960
	NON-MINORITY		76.76	90.97	9.02	78.59	1330
	MINORITY		65.81	86.39	13.60	75.03	4484
		FEMALE	75.32	90.56	9.43	78.27	2914
		MALE	61.27	84.31	15.68	73.41	2900
UPPER SES	NON-MINORITY		78.21	91.90	8.09	79.09	1235
UPPER SES	MINORITY		72.76	88.75	11.24	77.08	1619
LOWER SES	MINORITY		61.88	85.06	14.93	73.88	2865
LOWER SES	NON-MINORITY		57.89	78.94	21.05	72.12	95
UPPER SES		FEMALE	81.31	92.44	7.55	80.36	1429
LOWER SES		FEMALE	69.56	88.75	11.24	76.26	1485
UPPER SES		MALE	68.91	87.78	12.21	75.54	1425
LOWER SES		MALE	53.89	80.94	19.05	71.37	1475
	NON-MINORITY	FEMALE	83.59	92.87	7.12	80.73	646
	MINORITY	FEMALE	72.97	89.90	10.09	77.57	2268
	NON-MINORITY	MALE	70.32	89.18	10.81	76.58	684
	MINORITY	MALE	58.48	82.80	17.19	72.44	2216
UPPER SES	NON-MINORITY	FEMALE	84.74	93.53	6.46	81.28	603
UPPER SES	MINORITY	FEMALE	78.81	91.64	8.35	79.68	826
UPPER SES	NON-MINORITY	MALE	71.99	90.34	9.65	77.00	632
LOWER SES	MINORITY	FEMALE	69.62	88.90	11.09	76.36	1442
LOWER SES	NON-MINORITY	FEMALE	67.44	83.72	16.27	72.90	43
UPPER SES	MINORITY	MALE	66.45	85.75	14.24	74.37	793
LOWER SES	MINORITY	MALE	54.04	81.16	18.83	71.36	1423
LOWER SES	NON-MINORITY	MALE	50.00	75.00	25.00	71.48	52
*********	**********	******	68.31	87.44	12.55	75.85	5814

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF SENIOR HIGH MATHEMATICS GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			68.12	85.29	14.70	77.08	2510
LOWER SES			60.52	81.16	18.83	74.01	2617
	NON-MINORITY		70.87	87.27	12.72	77.71	1171
	MINORITY		62.28	81.97	18.02	74.86	3956
		FEMALE	69.83	86.22	13.77	77.56	2556
		MALE	58.69	80.16	19.83	73.48	2571
UPPER SES	NON-MINORITY		71.34	87.89	12.10	78.07	1082
UPPER SES	MINORITY		65.68	83.33	16.66	76.33	1428
LOWER SES	NON-MINORITY		65.16	79.77	20.22	73.33	89
LOWER SES	MINORITY		60.36	81.21	18.78	74.03	2528
UPPER SES		FEMALE	74.70	88.50	11.49	79.44	1261
LOWER SES		FEMALE	65.09	84.01	15.98	75.73	1295
UPPER SES		MALE	61.48	82.06	17.93	74.70	1249
LOWER SES		MALE	56.05	78.36	21.63	72.32	1322
	NON-MINORITY	FEMALE	75.31	89.69	10.30	79.23	563
	MINORITY	FEMALE	68.28	85.24	14.75	77.09	1993
	NON-MINORITY	MALE	66.77	85.03	14.96	76.30	608
	MINORITY	MALE	56.18	78.65	21.34	72.60	1963
LOWER SES	NON-MINORITY	FEMALE	77.50	90.00	10.00	76.70	40
UPPER SES	NON-MINORITY	FEMALE	75.14	89.67	10.32	79.42	523
UPPER SES	MINORITY	FEMALE	74.39	87.66	12.33	79.45	738
UPPER SES	NON-MINORITY	MALE	67.79	86.22	13.77	76.81	559
LOWER SES	MINORITY	FEMALE	64.70	83.82	16.17	75.70	1255
UPPER SES	MINORITY	MALE	56.37	78.69	21.30	72.99	690
LOWER SES	MINORITY	MALE	56.08	78.63	21.36	72.39	1273
LOWER SES	NON-MINORITY	MALE	55.10	71.42	28.57	70.59	49
*********	**********	******	64.24	83.18	16.81	75.51	5127

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